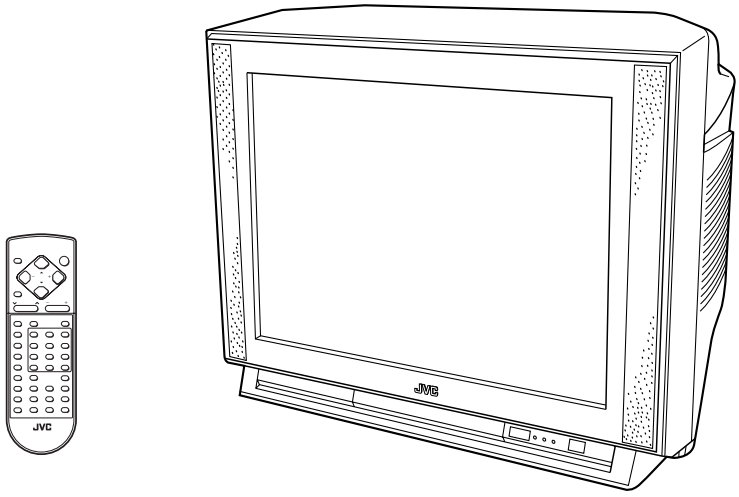
JVC

SCHEMATIC DIAGRAMS

COLOUR TELEVISION

AV-21PS



■ APPLICABLE MODELS

This standard circuit diagram is applicable to the following models.
However, there will be differences between this model and the following applicable models. For the differences, please refer to "PARTS DIFFERENCE TABLE" in the service manual of the following applicable models.

Basic Model (this Model)	Applicable Models	
AV-21PS (Service Manual: No. 56018, Jun. 2000)	AV-DX21(HK)	(Service Manual: No. 56019, Jun. 2000)
	AV-21PS(AU)	(Service Manual: No. 56020, Jun. 2000)
	AV-21P9(BK)	(Service Manual: No. 56021, Jun. 2000)
	AV-21P8TEE	(Service Manual: No. 56038, Jun. 2000)

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No. 56018
Jun. 2000

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1) Input signal : Colour bar signal
(2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
(3) Internal resistance of tester : DC 20kΩ/V
(4) Oscilloscope sweeping time : H → 20μS/div
: V → 5mS/div
: Others → Sweeping time is specified.
(5) Voltage values : All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3. INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R1209 → R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

● Resistance value
No unit : [Ω]
K : [KΩ]
M : [MΩ]

● Rated allowable power
No indication : 1/4 [W]
Others : As specified

● Type
No indication : Carbon resistor
OMR : Oxide metal film resistor
MFR : Metal film resistor
MPR : Metal plate resistor
UNFR : Non-flammable resistor
FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2) Capacitors

● Capacitance value
1 or higher : [pF]
less than 1 : [μF]

● Withstand voltage
No indication : DC50 [V]
AC indicated : AC withstand voltage [V]
Others : DC withstand voltage [V]

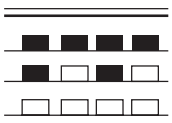
* Electrolytic Capacitors
47/50 [Example]: Capacitance value [μF]/withstand voltage [V]

● Type
No indication : Ceramic capacitor
MY : Mylar capacitor
MM : Metalized mylar capacitor
PP : Polypropylene capacitor
MPP : Metalized polypropylene capacitor
MF : Metalized film capacitor
TF : Thin film capacitor
BP : Bipolar electrolytic capacitor
TAN : Tantalum capacitor

(3) Coils

No unit : [μH]
Others : As specified

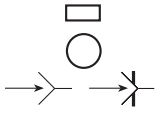
(4) Power Supply



* Respective voltage values are indicated.

(5) Test point

(6) Connecting method



(7) Ground symbol

⊥ : LIVE side ground
⏚ : ISOLATED (NEUTRAL) side ground
⏚ : EARTH ground
⏚ : DIGITAL ground

5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED (NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED (NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
(2) Do not short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED (NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

● **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

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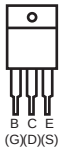
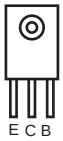
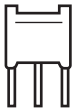
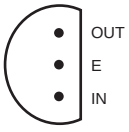
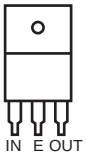
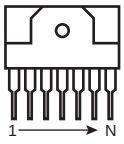
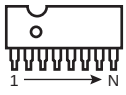
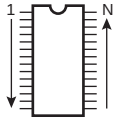
SEMICONDUCTOR SHAPES

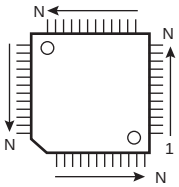
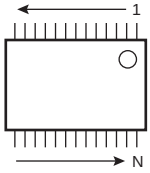
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

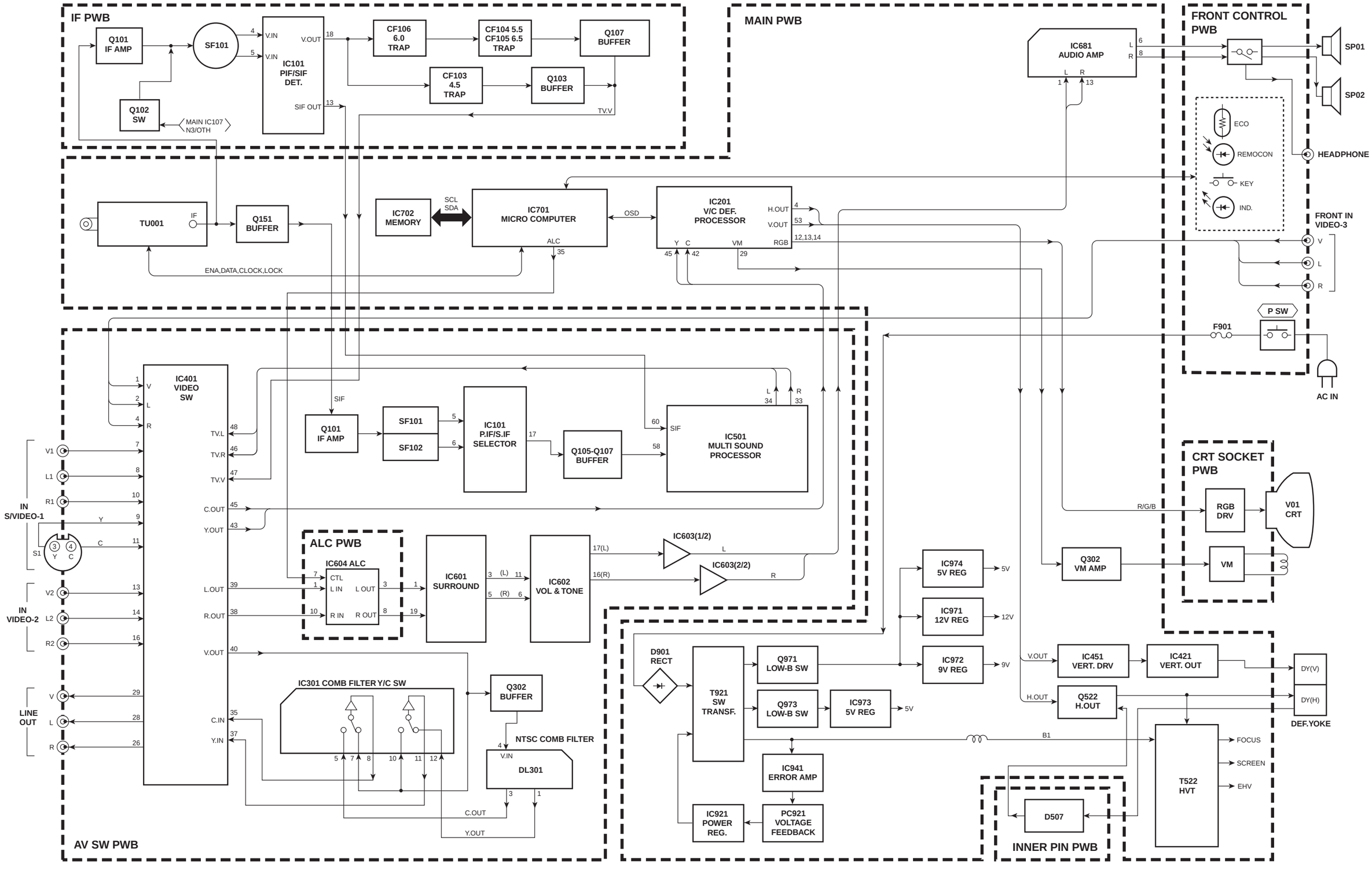
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

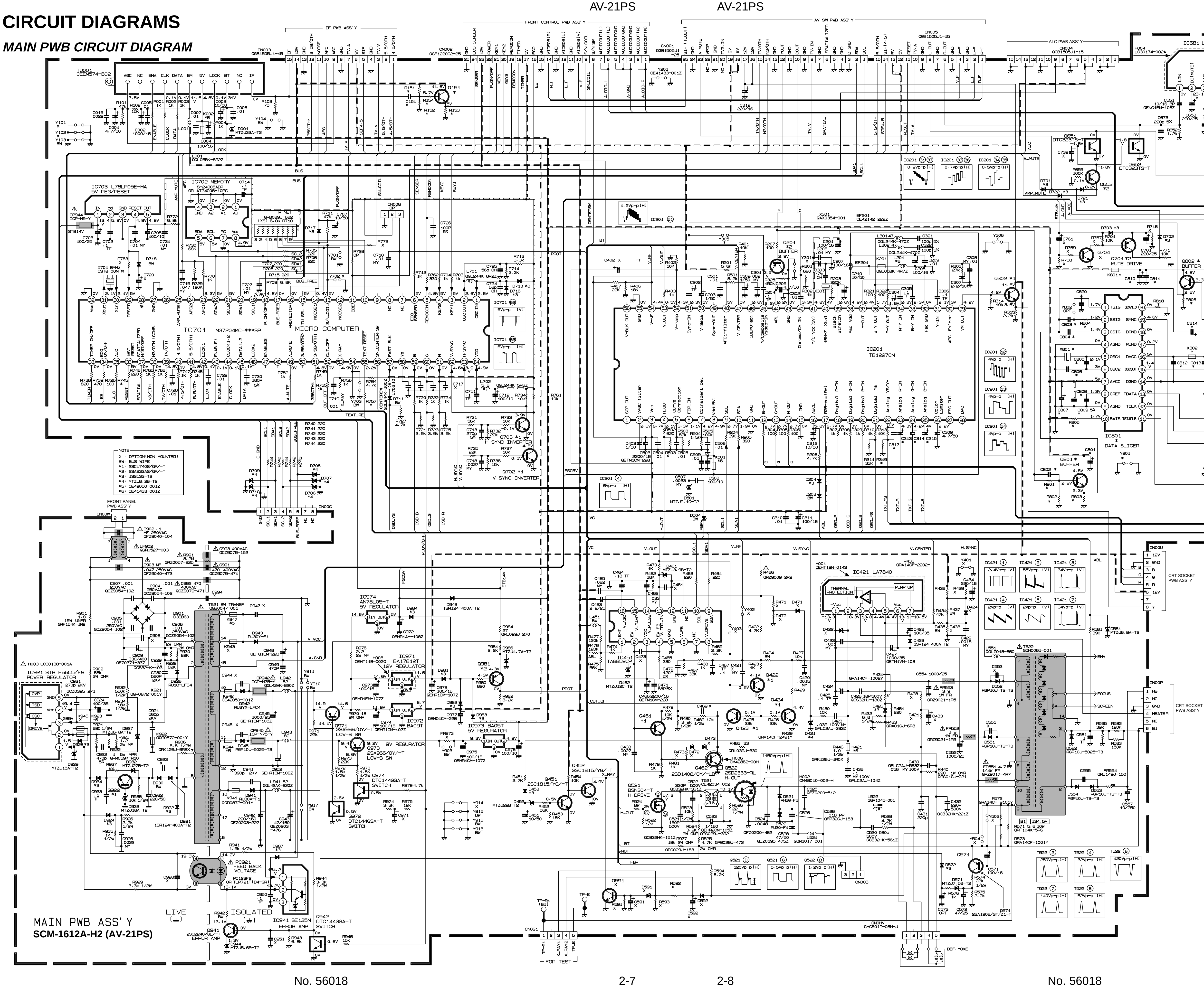
TOP VIEW		
		

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

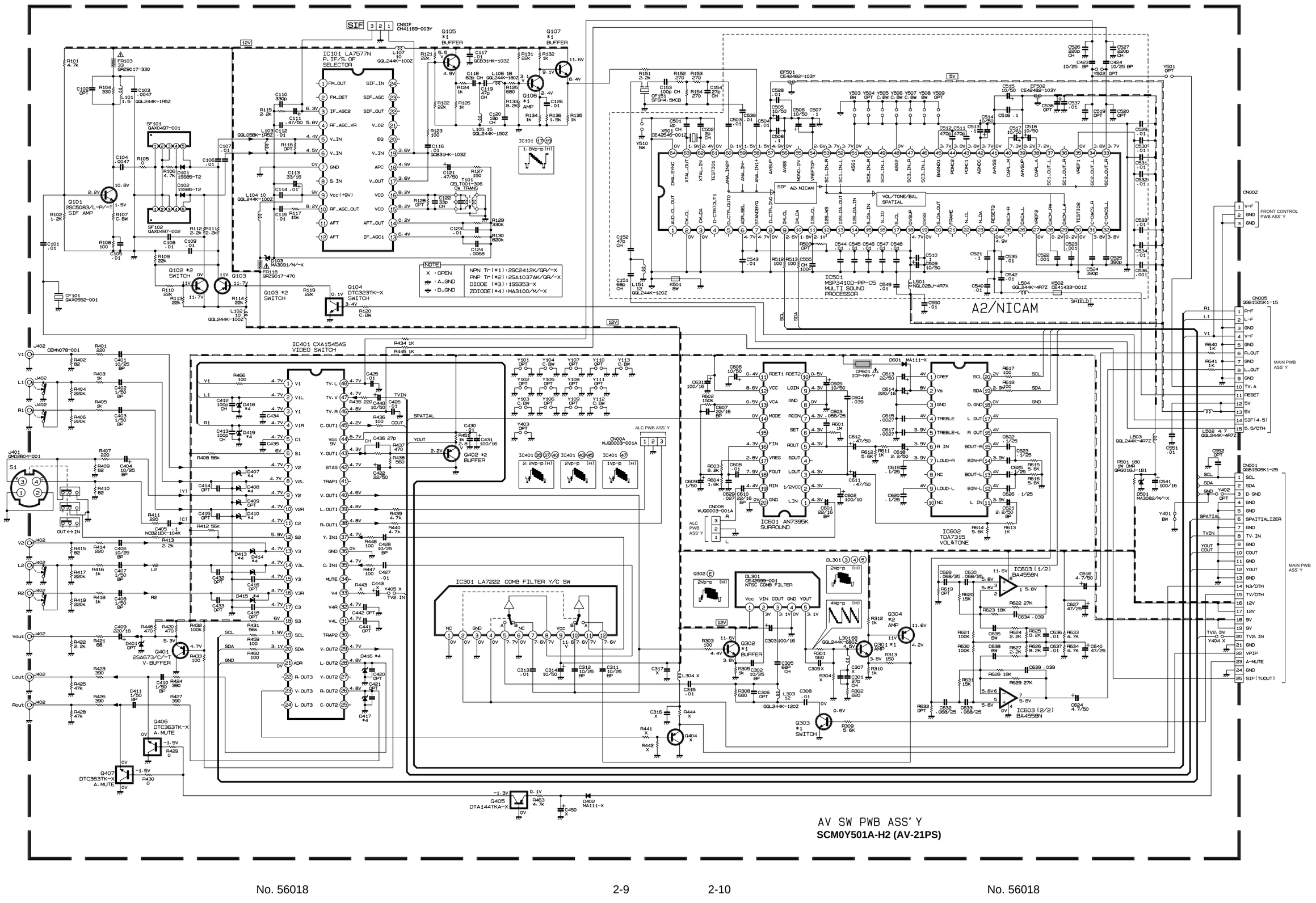
MAIN PWB CIRCUIT DIAGRAM


IF PWB ASS'Y
FRONT CONTROL PWB ASS'Y
AV SW PWB ASS'Y
ALC PWB ASS'Y
IC681 LA4446 AUDIO AMP
TU001 CEEM574-B02
IC703 L78LR05E-MA 5V REG/RESET
IC702 MEMORY S-24C08ADP OR AT24C08-10PC
IC701 M37204MC-***SP MICRO COMPUTER
IC201 TB1227CN
IC801 DATA SLICER
IC802 TELETEXT DECODER
Q701 MUTE DRIVE
Q702 V SYNC INVERTER
Q703 H SYNC INVERTER
NOTE
X : OPTION(NON MOUNTED)
BW: BUS WIRE
*1: 2SC1740S/QR/-T
*2: 2SA933AS/QR/-T
*3: 1SS133-T2
*4: MTZJ8.2B-T2
*5: CE42050-001Z
*6: CE41433-001Z
FRONT PANEL PWB ASS'Y
IC921 STR-F6655/F9 POWER REGULATOR
T921 SW TRANSF QQS0047-001
IC974 AN78L05-T 5V REGULATOR
IC971 BA17812T 12V REGULATOR
IC972 BA09T
IC973 BA05T 5V REGURATOR
Q971 2SA966/OY/-T LOW-B SW
Q973 2SA966/OY/-T LOW-B SW
9V REGURATOR
Q974 DTC144GSA-T SWITCH
Q972 DTC144GSA-T SWITCH
PC921 FEED BACK VOLTAGE PC123F2 OR TLP721F(D4-GR)
IC941 SE135N ERROR AMP
Q941 2SC2240/GL/-T ERROR AMP
Q942 DTC144GSA-T SWITCH
LIVE
ISOLATED
MAIN PWB ASS'Y
SCM-1612A-H2 (AV-21PS)
IC451 TA8859CP
IC421 LA7840
Q521 BSN304-T H. DRIVE
Q522 2SD2333-RL H. OUT
T522 QQH0061-001
CRT SOCKET PWB ASS'Y
DEF. YOKE
FOR TEST

*PARTS

*	AV-21PS	*	AV-21PS
Q151	*1	R816	1.5k
C151	.01	R817	1.5k
R151	10k	R818	BW
R152	10k	K801	*6
R153	1k		
R154	BW	K802	*6
Q303	*1		
Q304	*1	L803	BW
C313	1/50	Y801	X
C314	1/50	X801	CE41257-001Z
C315	1/50		
R319	33K	C317	47p 5%
Y305	X	R757	1k
IC801	ET417	R745	100
IC802	ET211		
Q801	*1		
Q802	*1		
C801	47/25		
C802	330p 5%		
C803	.022 MY		
C804	220p 5%		
C805	15P CH		
C806	15P CH		
C807	100/10		
C808	.001		
C809	220p 5%		
C810	100/10		
C811	.01		
C812	.1 TF		
C813	.01		
C814	22/50		
C815	.1 TF		
C816	.01		
C817	.01		
C818	.01		
C820	QFV71HJ-104Z		
R801	470		
R802	3.9k		
R803	560		
R804	BW		
R805	1k		
R806	1.5k		
R807	33k		
R808	1.8k		
R809	180		
R810	1.8k		
R811	180		
R812	1.8k		
R813	180		
R814	1.2k		
R815	560		

AV SW PWB CIRCUIT DIAGRAM



IF PWB CIRCUIT DIAGRAM

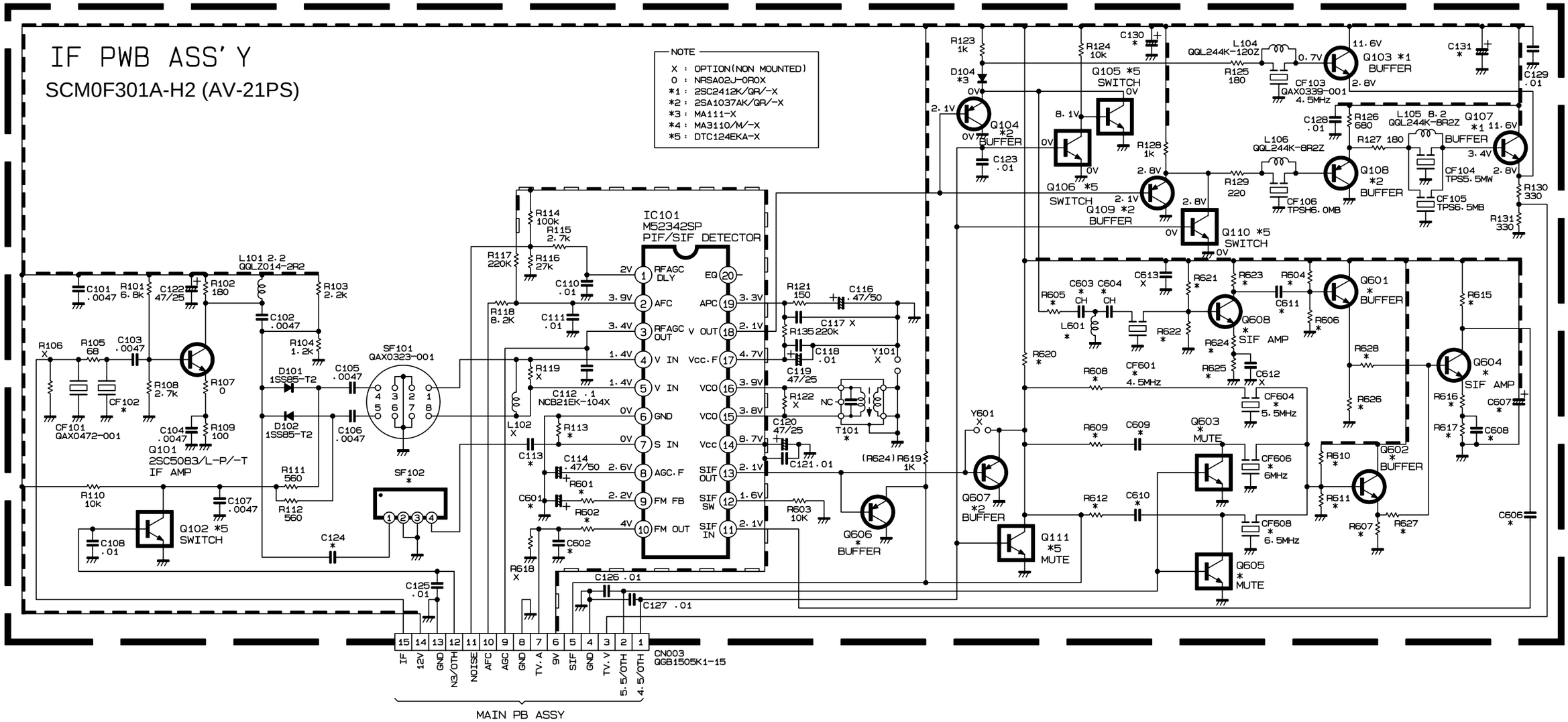
*PARTS

*	AV-21PS
C113	X
C124	X
CF102	QAX0358-001
Q111	X
R113	0
SF102	X
C601	X
C602	X
C603	X
C604	X
C606	X
C607	X
C608	X
C609	X
C610	X
C611	X
C612	X

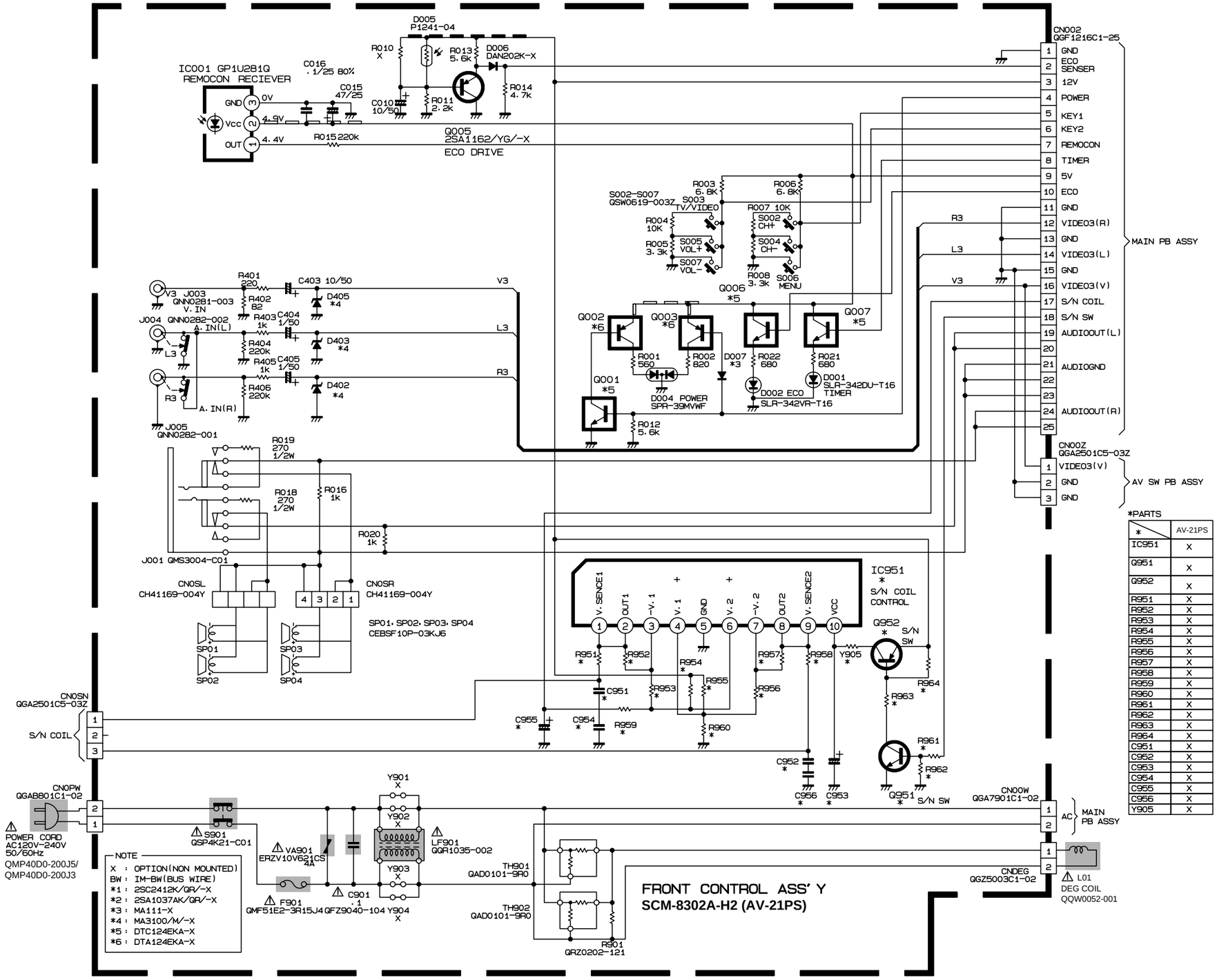
*	AV-21PS
CF601	X
CF604	X
CF605	X
CF608	X
L601	X
Q601	X
Q602	X
Q603	X
Q604	X
Q605	X
Q606	*2
Q608	X

*	AV-21PS
R601	X
R602	X
R604	X
R605	X
R606	X
R607	X
R608	X
R609	X
R610	X
R611	X
R612	X
R615	X
R616	X
R617	X
R619	1k
R620	X

*	AV-21PS
R621	X
R622	X
R623	X
R624	X
R625	X
R626	X
R627	X
R628	X
C130	X
C131	X
T101	CELT001-303J3



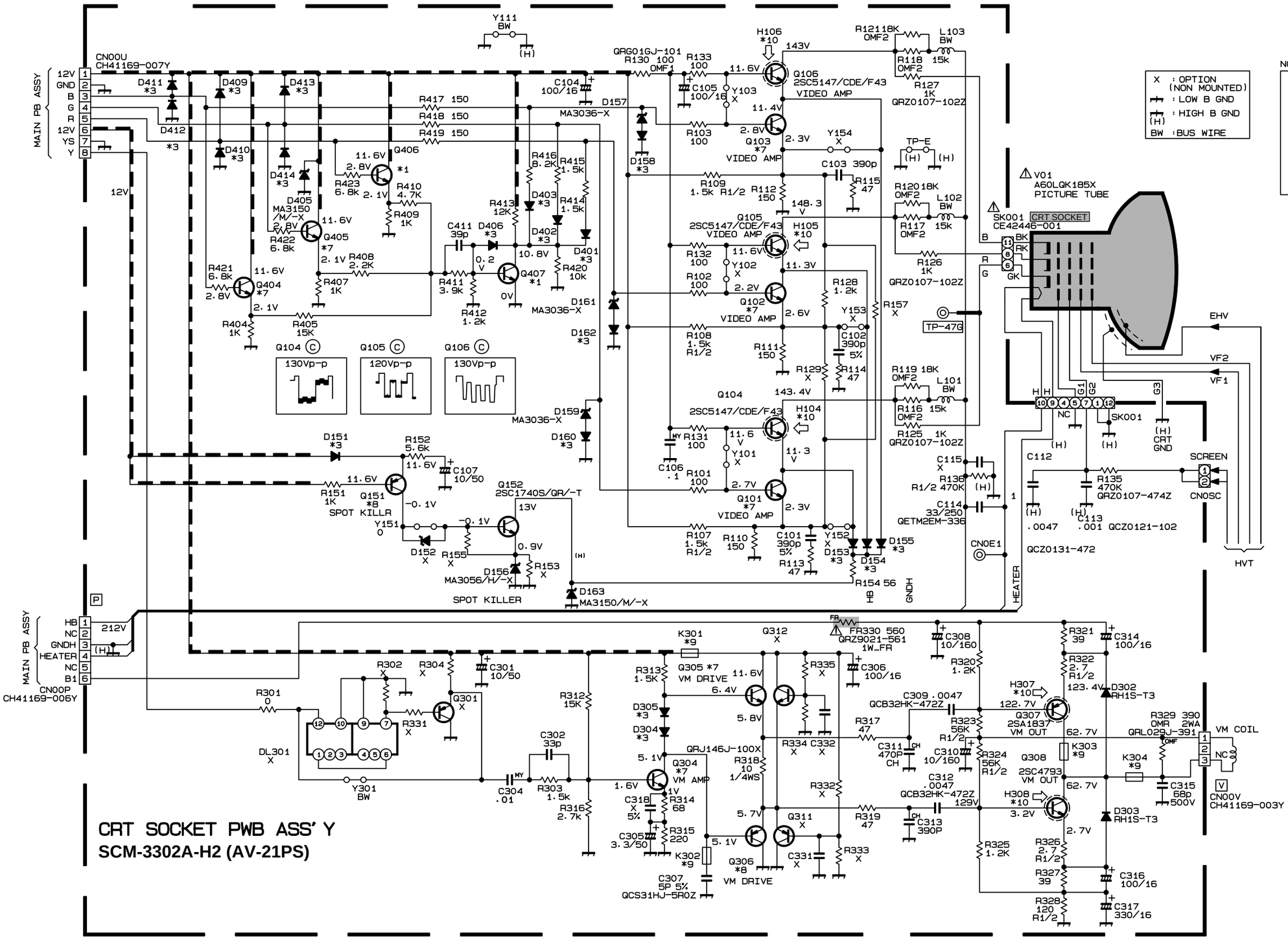
FRONT CONTROL PWB CIRCUIT DIAGRAM



*PARTS

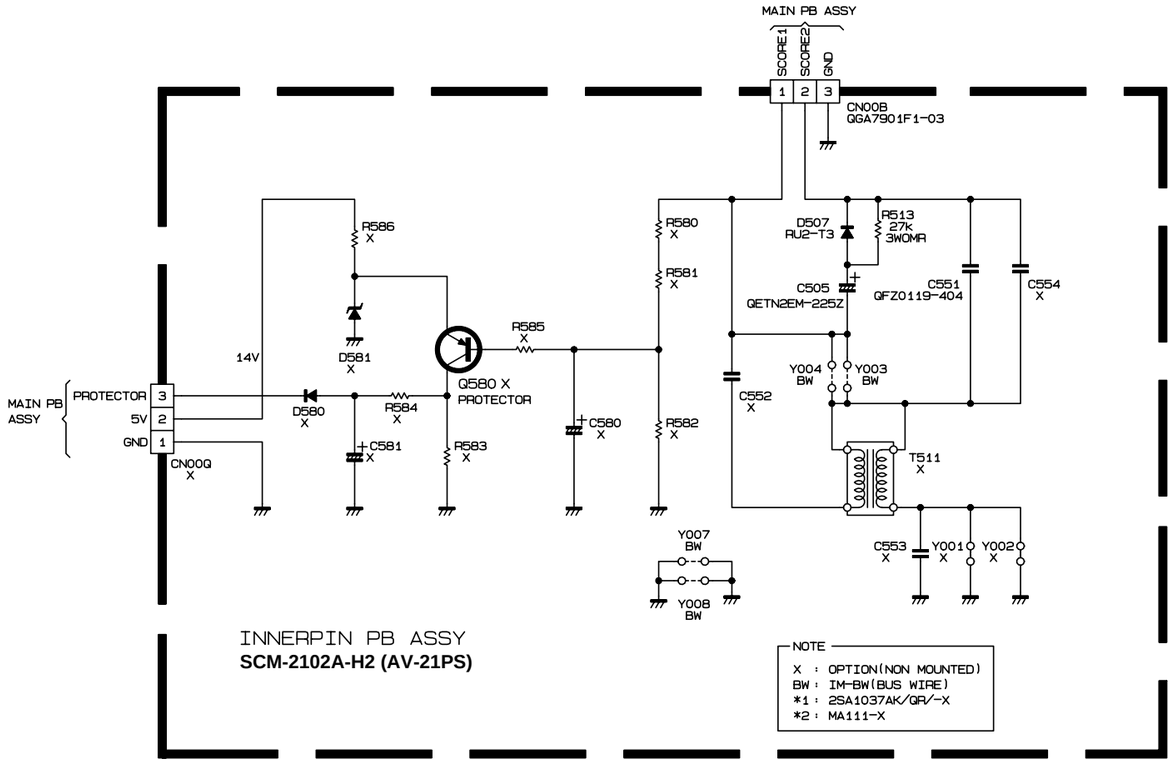
*	AV-21PS
IC951	X
Q951	X
Q952	X
R951	X
R952	X
R953	X
R954	X
R955	X
R956	X
R957	X
R958	X
R959	X
R960	X
R961	X
R962	X
R963	X
R964	X
C951	X
C952	X
C953	X
C954	X
C955	X
C956	X
Y905	X

CRT SOCKET PWB CIRCUIT DIAGRAM

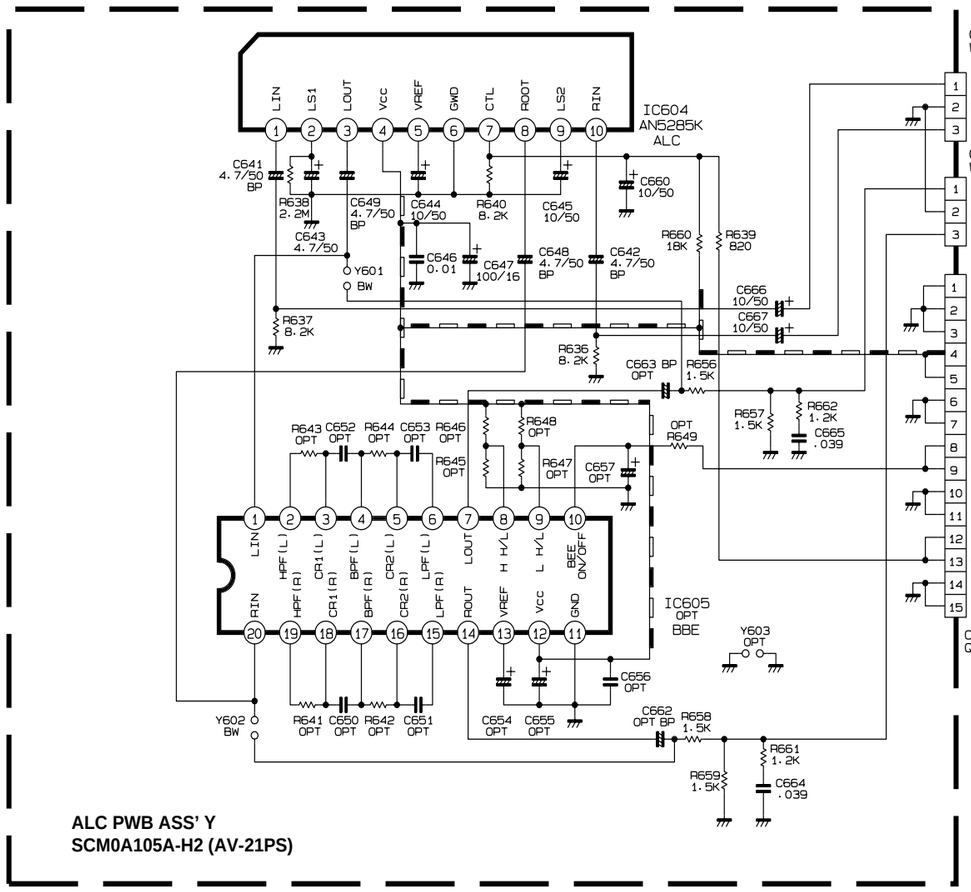


AV-21PS

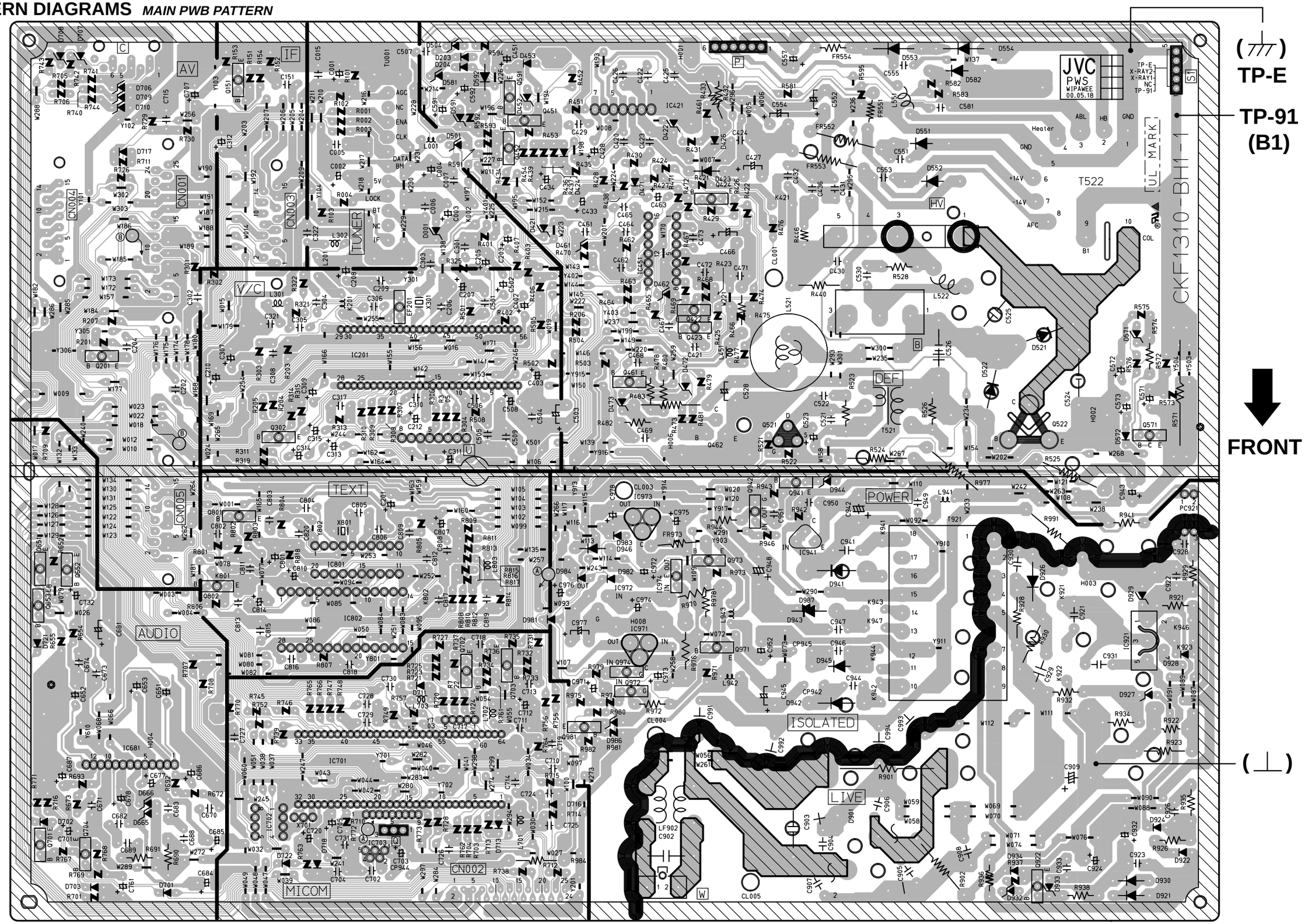
INNER PIN PWB CIRCUIT DIAGRAM



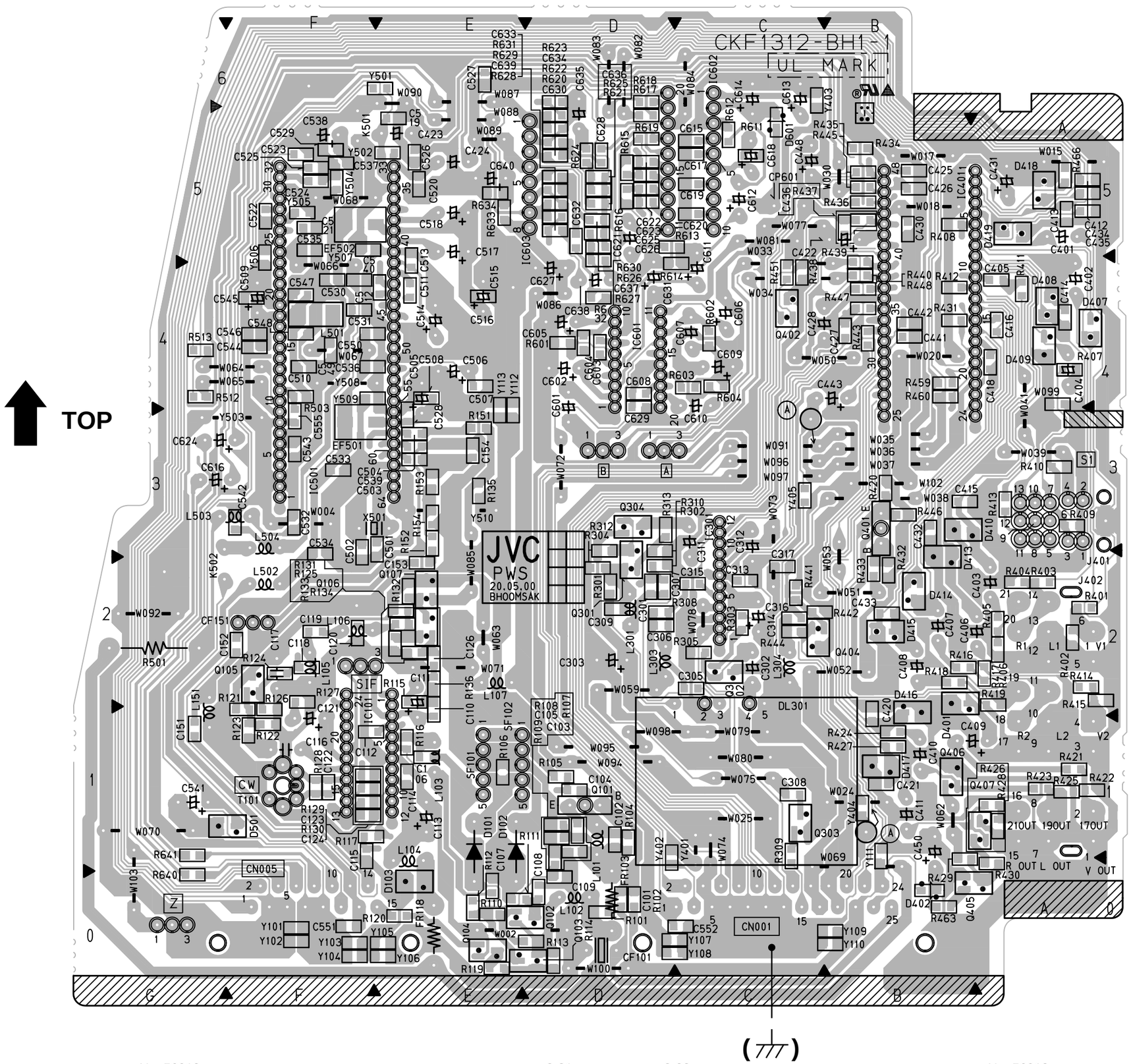
ALC PWB CIRCUIT DIAGRAM



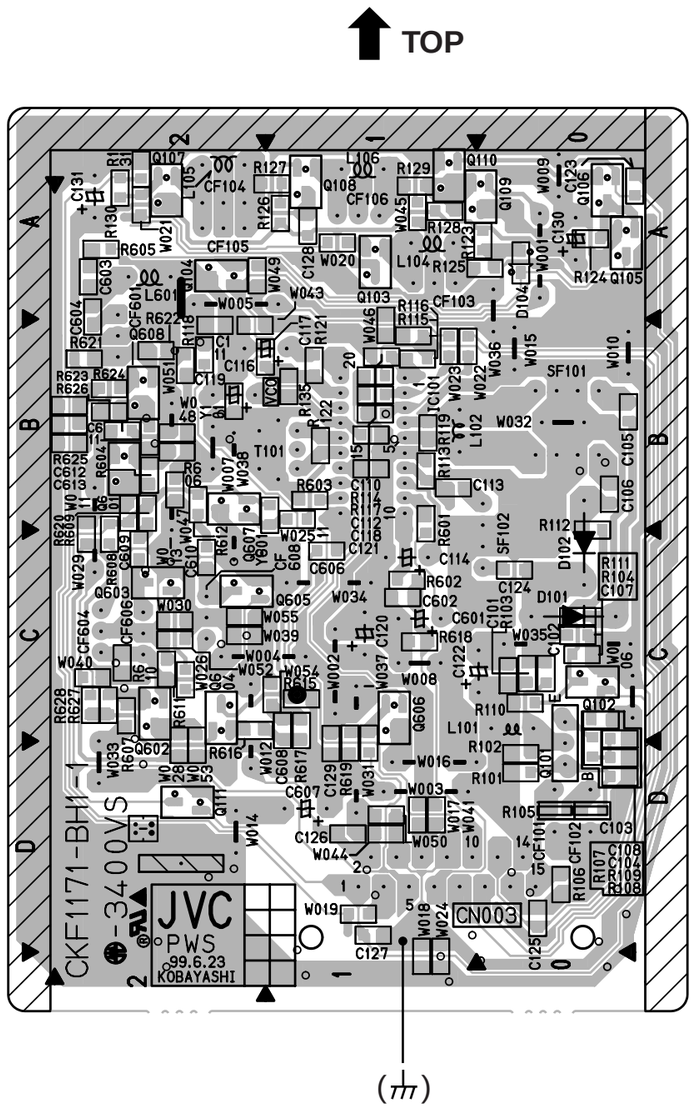
PATTERN DIAGRAMS *MAIN PWB PATTERN*



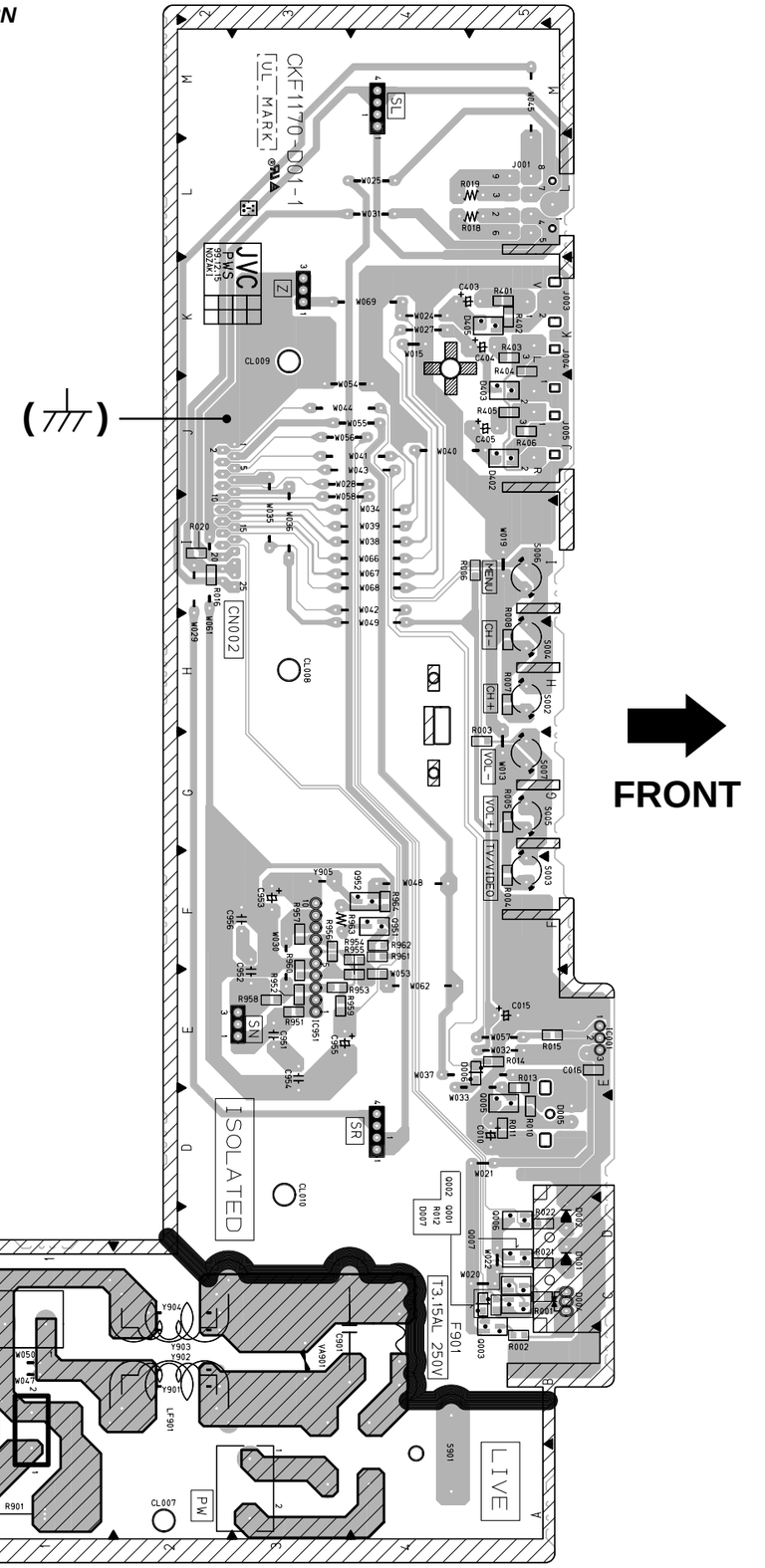
AV SW PWB PATTERN



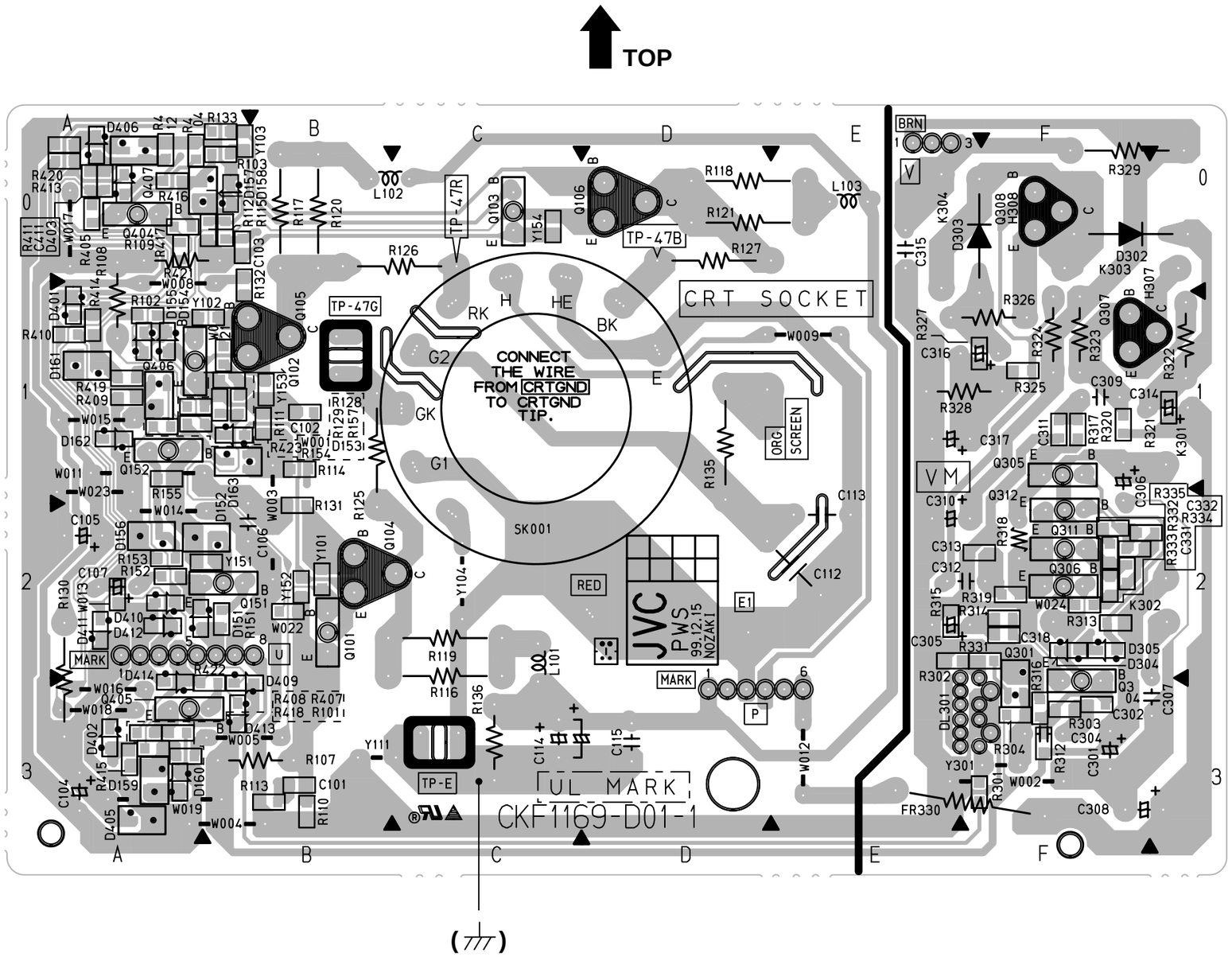
IF PWB PATTERN



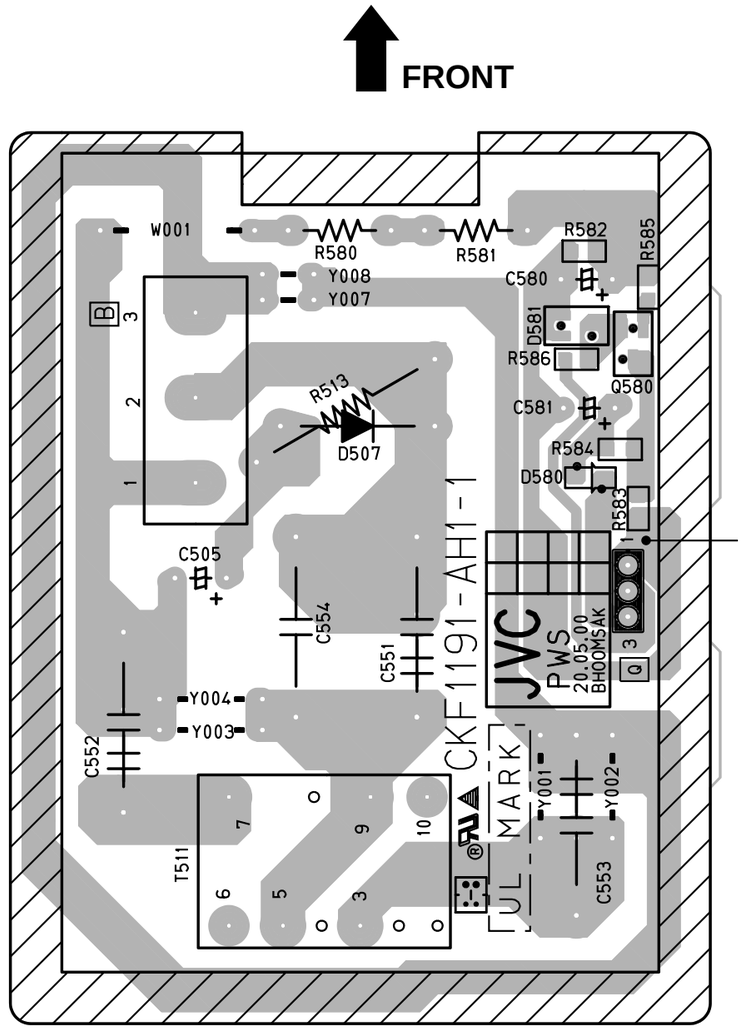
FRONT CONTROL PWB PATTERN



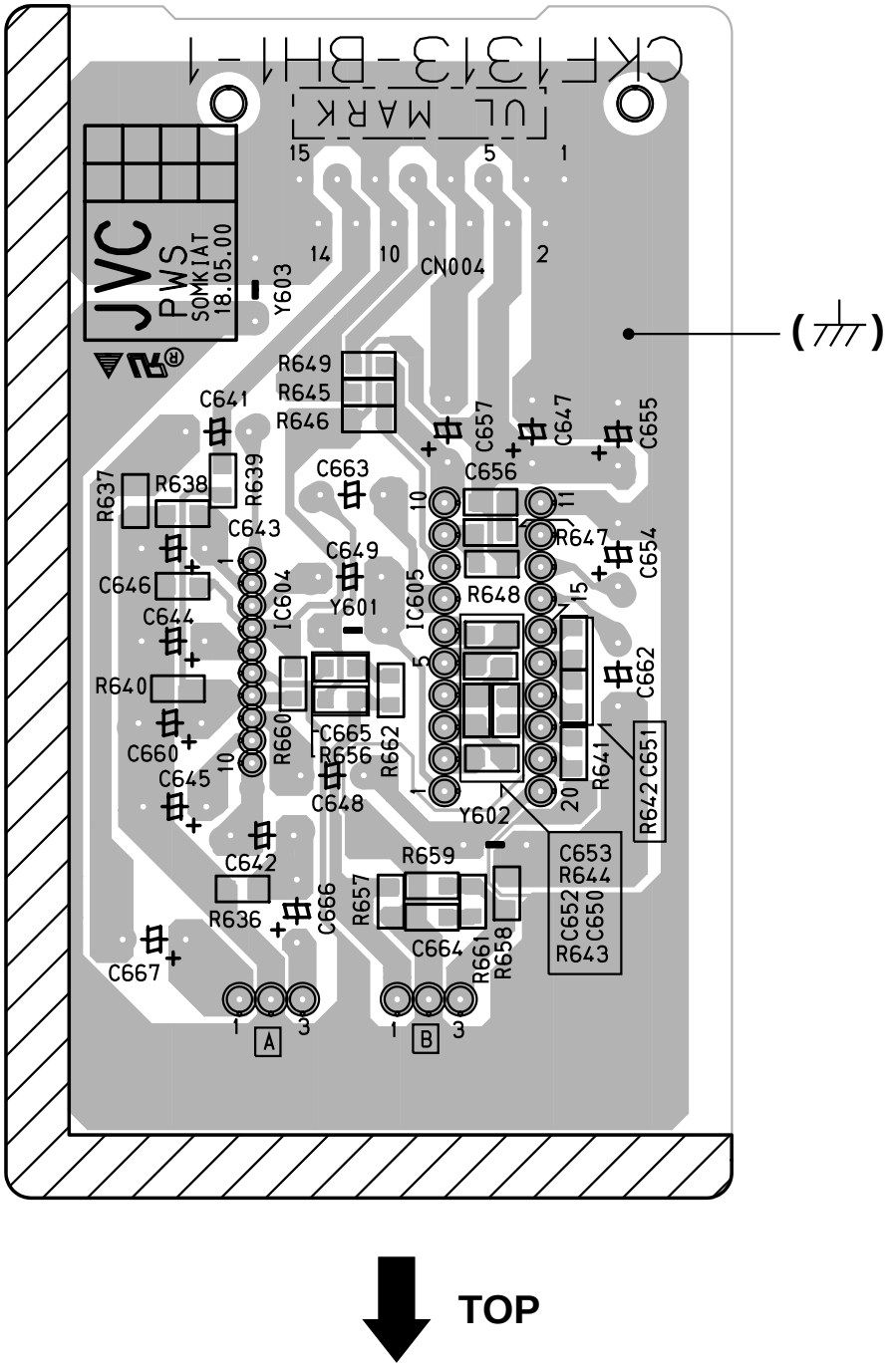
CRT SOCKET PWB PATTERN



INNER PIN PWB PATTERN



ALC PWB PATTERN



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